U.S. Department of Energy

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Cloud Modelng & Aerosol WG Meeting
Sep/oct 2009
Boulder

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The New Program: ASR

Atmospheric

System

Research.

Any program is as good as the science it promotes!

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Newsletter @ BER

- **Need Abstract of your Published paper**

(Executive Summary format)

ASR Budget: ~$25M

FY10: about $1M increase

SciPlan for ASR

Why DOE is in Climate Business?

- how energy production results in climate change?
- how climate change may impact energy production?

Why ARM and ASP are merged?

- avoid compartmentalized research approach
- deal with clouds, aerosols, precipitation, radiation in a holistic and comprehensive fashion

ASR Program Mission

- understand, and improve C, A, P, & R processes and their interactions

- Ultimate goal is to develop comprehensive, integrated, multi-scale frameworks representing life cycles of Clouds, Aerosols

Tools: Obs & Models

- Characteristics of coordinated Lab and field measurements to understand life cycles of Clds & Aeros

- What types of integrated & comprehensive data products necessary to tackle these processes

- characterize uncertainty in data products

  helps to evaluate and improve physical formulations for Cld, Aero, Rad processes

- complexity Vs accuracy
  - efficient computational techniques

- Feedback to Obs strategies

New Instruments & New insights

Synergy & product grouping is very important

Models & Processes:

- Scales of Obs
- choices for models
- scaling up obs
- unification of research issues common for aerosols and clouds
- Metrics for processes
- Simulators

Where possible, Collaboration is highly encouraged.

Questions?

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Earth Explorers
The Living Planet Programme
European Space Agency
esa

Observation Technique

Synergy